Pipeline and Hazardous Materials Safety Administration COMPETENT AUTHORITY CERTIFICATION FOR A TYPE FISSILE RADIOACTIVE MATERIALS PACKAGE DESIGN

CERTIFICATE USA/9328/AF-96, REVISION 1

East Building, PHH-23 1200 New Jersey Avenue SE Washington, D.C. 20590

This certifies that the radioactive material package design described has been certified by the Competent Authority of the United States as meeting the regulatory requirements for a Type AF packaging for fissile radioactive material as prescribed in the regulations of the International Atomic Energy Agency¹ and the United States of America².

- 1. Package Identification TN-55.
- 2. <u>Package Description and Authorized Radioactive Contents</u> as described in U.S. Nuclear Regulatory Commission Certificate of Compliance No. 9328, Revision 3 (attached).
- 3. <u>Criticality</u> The minimum criticality safety index is 1.7. The maximum number of packages per conveyance is determined in accordance with Table X of the IAEA regulations cited in this certificate.

4. <u>General Conditions</u> -

- a. Each user of this certificate must have in his possession a copy of this certificate and all documents necessary to properly prepare the package for transportation. The user shall prepare the package for shipment in accordance with the documentation and applicable regulations.
- b. Each user of this certificate, other than the original petitioner, shall register his identity in writing to the Office of Hazardous Materials Technology, (PHH-23), Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, Washington D.C. 20590-0001.
- c. This certificate does not relieve any consignor or carrier from compliance with any requirement of the Government of any country through or into which the package is to be transported.

¹ "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency(IAEA), Vienna, Austria.

² Title 49, Code of Federal Regulations, Parts 100-199, United States of America.

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- Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations shall be maintained and made available to the authorized officials for at least three years after the last shipment authorized by this certificate. Consignors in the United States exporting shipments under this certificate shall satisfy the applicable requirements of Subpart H of 10 CFR 71.
- Special Condition Transport by air is not authorized.
- 6. <u>Marking and Labeling</u> - The package shall bear the USA/9328/AF-96 in addition to other required markings and labeling.
- Expiration Date This certificate expires on April 30, 2012. On 7. December 31, 2008, this certificate supersedes all previous revisions of USA/9328/AF-96.

This certificate is issued in accordance with paragraph 814 of the IAEA Regulations and Section 173.471 and 173.472 of Title 49 of the Code of Federal Regulations, in response to the October 03, 2008 petition by Areva, Lynchburg, VA, and in consideration of other information on file in this Office.

Certified By:

Nov 06 2008

Robert A. Richard (DATE)

Deputy Associate Administrator for Hazardous Materials Safety

Revision 1 - Issued to endorse U.S. Nuclear Regulatory Commission Certificate of Compliance No. 9328, Revision 3.

NRC FORM 618 U.S. NUCLEAR REGULATORY COMMISSION (8-2000) 10 CFR 71 CERTIFICATE OF COMPLIANCE FOR RADIOACTIVE MATERIAL PACKAGES CERTIFICATE NUMBER b. REVISION NUMBER c. DOCKET NUMBER d. PACKAGE IDENTIFICATION NUMBER PAGE PAGES 9328 3 71-9328 USA/9328/AF-96 1 OF 3

PREAMBLE

- a. This certificate is issued to certify that the package (packaging and contents) described in Item 5 below meets the applicable safety standards set forth in Title 10, Code of Federal Regulations, Part 71, "Packaging and Transportation of Radioactive Material."
- b. This certificate does not relieve the consignor from compliance with any requirement of the regulations of the U.S. Department of Transportation or other applicable regulatory agencies, including the government of any country through or into which the package will be
- THIS CERTIFICATE IS ISSUED ON THE BASIS OF A SAFETY ANALYSIS REPORT OF THE PACKAGE DESIGN OR APPLICATION
- ISSUED TO (Name and Address) a. AREVA Federal Services LLC 1102 Broadway Plaza, Suite 300 Tacoma, WA 98402-3526
 - b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION Packaging Technology, Inc., application dated August 28, 2006, as supplemented.

4. CONDITIONS

This certificate is conditional upon fulfilling the requirements of 10 CFR Part 71, as applicable, and the conditions specified below.

5.

a. Packaging

(1) Model No.:

(2)Description

> The Model No. TN-55 packaging is designed to transport uranium oxide powder. The packaging consists of a 55-gallon drum within an overpack. The uranium oxide powder is transported inside the drum. The 55-gallon drum is a DOT specification 7A Type A drum with a reinforced closure system and ceramic gasket. The overpack for the drum has an outer surface of nominal 18-gauge galvanized carbon steel, and a reinforced fiberglass liner. The void space between the liner and outer surface is filled with a polyurethane foam. Forklift pockets, made of 12-gauge galvanized carbon steel, are located on the bottom of the overpack. The nominal outside dimensions of the overpack are 32 inch diameter and 51-5/8 inch height. The maximum gross weight of the package is 1,010 pounds.

(3)Drawing

> The packaging shall be constructed and assembled in accordance with Areva Drawing No. 60699-SAR, Revision No. 1, sheets 1 through 4.

NRC FORM 618 U.S. NUCLEAR REGULATORY COMMISSION (8-2000) 10 CFR 71 CERTIFICATE OF COMPLIANCE FOR RADIOACTIVE MATERIAL PACKAGES a. CERTIFICATE NUMBER b. REVISION NUMBER c. DOCKET NUMBER d. PACKAGE IDENTIFICATION NUMBER PAGE PAGES 9328 3 71-9328 USA/9328/AF-96 2 OF 3

- b. Contents (continued)
 - (1) Type and Form of Material

Unirradiated uranium oxide powder with a maximum moisture content of 2 percent. The maximum enrichment is 1.2 weight percent u-235. The content may be packaged in plastic packaging or with other plastic material within the 55-gallon drum, provided the total plastic per drum does not exceed 1,307 grams water-hydrogen equivalent or (1,000 grams of polyethylene). Materials with a hydrogen density greater than water are not authorized, with the exception of polyethylene.

(2) Maximum Quantity of Material per Package

Up to 650 pounds (295 kilograms) of unirradiated uranium oxide powder per package.

c. Criticality Safety Index: 📎

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- 6. Transport by air is not authorized.
- 7. In addition to the requirements of Subpart G of 10 CFR Part 71:
 - a. Each package shall be prepared for shipment and operated in accordance with the "Package Operations," in Chapter 7 of the application.
 - b. Each packaging shall be tested and maintained in accordance with the "Acceptance Tests and Maintenance Program," in Chapter 8 of the application.
- 8. The package authorized by this certificate is hereby approved for use under general license provisions of 10 CFR 71.17.
- 9. Revision No. 2 of this certificate may be used until December 31, 2008.
- 10. Expiration date: April 30, 2012.

NRC FORM 618 U.S. NUCLEAR REGULATORY COMMISSION (8-2000) 10 CFR 71 **CERTIFICATE OF COMPLIANCE** FOR RADIOACTIVE MATERIAL PACKAGES a. CERTIFICATE NUMBER b. REVISION NUMBER c. DOCKET NUMBER d. PACKAGE IDENTIFICATION NUMBER PAGE PAGES 9328 3 71-9328 USA/9328/AF-96 OF 3 3

REFERENCES

Packaging Technology, Inc., application dated August 28, 2006.

Supplement dated: January 31, 2007, and November 26, 2007.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Robert A. Nelson, Chief

Licensing Branch

Division of Spent Fuel Storage and Transportation

Office of Nuclear Material Safety

and Safeguards

Date: January 1, 2008



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION REPORT

Docket No. 71-9328 Model No. TN-55 Certificate of Compliance No. 9328 Revision No. 3

SUMMARY

By application dated November 26, 2007, Packaging Technology, Inc., and AREVA Federal Systems, LLC, jointly requested an amendment to Certificate of Compliance (CoC) No. 9328, for the Model No. TN-55 transportation package. The applicants requested that this CoC be transferred from Packaging Technology, Inc., to AREVA Federal Services, LLC, effective January 1, 2008.

EVALUATION

By application dated November 26, 2007, Packaging Technology, Inc., and AREVA Federal Systems, LLC (hereinafter, AREVA), jointly requested that CoC No. 9328 for the Model No. TN-55 transportation package be transferred from Packaging Technology, Inc., to AREVA effective January 1, 2008. The applicants stated that Packaging Technology will commence doing business as AREVA on that date. AREVA stated that it accepts responsibility for the completeness and accuracy of the statements and representations in the safety analysis report (SAR) for this docket. In addition, AREVA stated that it will maintain the CoC, SAR, and, in cases where packages have been fabricated, the quality assurance records. The staff has verified that AREVA received Quality Assurance Program Approval No. 0938, Rev 0, on October 11, 2007, as stated in its application. Therefore, the name in paragraph 3.a of the CoC was changed as requested.

The certificate was revised to include Condition No. 9 which authorizes use of the previous revision of the certificate for a period of approximately one year.

CONCLUSION

The CoC has been revised to state that the CoC holder is AREVA Federal Services, LLC. This change does not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued with CoC No. 9328, Rev. 3 on January 1, 2008





Pipeline and Hazardous Materials Safety Administration

CERTIFICATE NUMBER: USA/9328/AF-96, Revision 1

ORIGINAL REGISTRANT(S):

Richard Montgomery Nuclear Criticality Safety & Shipping Containers Areva 1724 Mount Athos Road P.O. Box 11646 Lynchburg, VA 24506-1646

Ms. Catherine Anne Director of Transport Operations Areva 7135 Minstrel Way Suite 300 Columbia, 21045 USA

Mr. Jim Davis Areva 2101 Horn Rapids Road Richland, WA 99352

Mr. Charlie Holman Areva P.O. Box 11646 Lynchburg, VA 24506-1646

Ralf Witten Areva Abteilung ANF-LP Advanced Nuclear Fuels GmbH Postfach 1485 Lingen, Niedersachsen 49784 Germany

REGISTERED USER(S):

Mr. Rick Migliore Packaging Technology, Inc. 1102 Broadway Plaza Suite 300 Tacoma, 98402 USA

Mr. Fred Yapuncich Packaging Technology, Inc. 1102 Broadway Plaza Suite 300 Tacoma, 98402-3526 USA